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The Editor British Medical Journal
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with D. Gaudner compl.

SEVENTEENTH ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
OF THE
BURGH OF CRIEFF.
1896.

H. K. BROWN, PRINTER, CRIEFF.

BURGH OF CRIEFF.

MEDICAL OFFICER'S REPORT FOR 1896.

SANITARY DEPARTMENT,
CRIEFF, 31st January, 1897.

To the Local Government Board for Scotland, and
the Local Authority of the Burgh of Crieff.

MY LORD AND GENTLEMEN,

I have the honour to submit to you my Seventeenth Annual Report on the Health of the Burgh of Crieff.

Meteorological Observations.

The Rainfall during the year 1896 was 34 inches, compared with 37 inches in 1895, and 46 in 1894. The largest amount fell in September—6·11 inches, and in December, 6·24 inches. The least amount fell in May—0·52 inches, and in November, 0·90 inches. Rainfall.

The mean corrected Barometrical Readings vary from 29·885 in May, to 29·225 in March. Barometrical Readings.

The Temperature in the shade has varied from 18° to 80° Far. In 1894 it varied from 2° to 83°, and in 1895 from 4° to 84°. Temperature.

The prevailing winds in their order of frequency are West, 120·5 days; East, 72·5 days; South-West, 55 days; North-West, 44·5 days; North-East, 26 days; North, 17·5 days; South-East, 8 days, and South, 5 days. It was calm on 17 days. Last year the order of frequency was—East, 93·5 days; West, 93 days; South-West, 55 days; North-West, 44 days; North-East, 21 days; South-East, 16 days; North, 9 days, and South, 6 days. It was calm on 27·5 days. Wind.

The Sanitary Condition of the Burgh is slowly improving.

The Death-Rate for the latter half of the year—14 per 1000—is a singularly satisfactory one, and one the Local Authority should endeavour to maintain. Improved Death and Birth Rate

The Birth-Rate is better than the preceding year's, and not so largely supplemented by so-called Illegitimate Births—8·6 per cent., as against 14 per cent. last year.

From my previous Reports it may be gathered that the Burgh possesses all natural advantages and an abundant supply of pure water. The system of drainage, so far as the carriage of the Sewage from the houses to the Sewage Fields, is fairly satisfactory. Natural Advantages.
Main Drains.

The Local Authority will also have gathered that much remains to be done in the way of Sanitation.

In my Report for 1894 I reported adversely on the private connections in many cases with the public drains. In the higher parts of the Burgh there seems to be no system of ventilating them. Drainage.

I understand the Sewage farms have now attracted the attention of the Local Authority. Pollution of Rivers.

In the above-mentioned Report the following passage occurs—"nothing further has been done to render these Sewage farms (which are not worthy of the name) more efficient. At times they are simply swamps, and thereby render the ground useless for irrigation purposes." Their condition at this date remains unchanged.

In a Report dated 15th October, 1894, I stated that irrigation as carried on on one of the Sewage farms was an offensive process of trade. The same remark applies to the other farms or fields. I suggested what, in my opinion, ought to be done to improve these fields, and obviate the pollution of the River Earn.

With reference to the proposal to put in a series of settling tanks, and adopt the method of precipitation by lime, some recent experiments in Exeter tend to show that lime is unnecessary.

Vital Statistics.

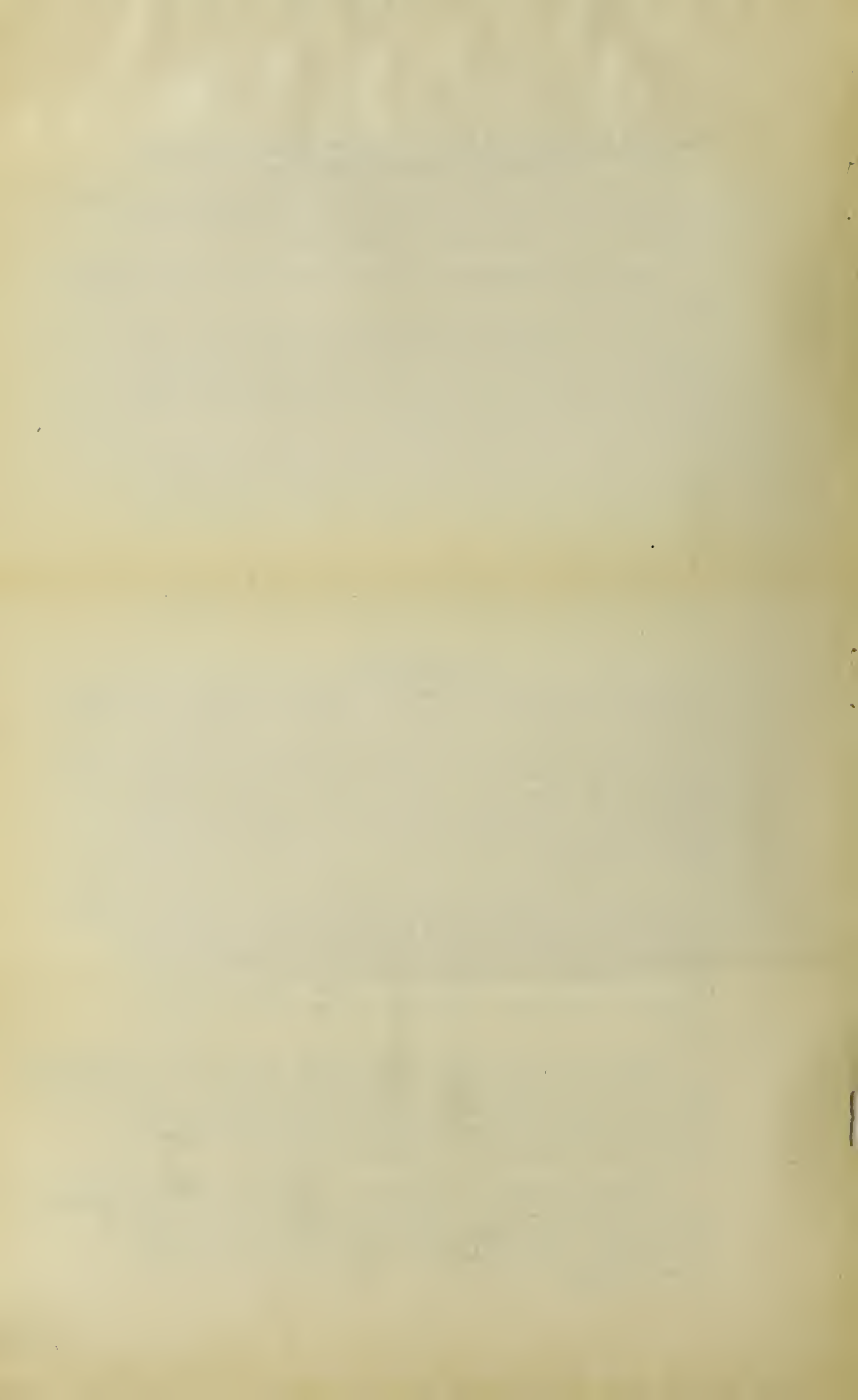
During the year there were registered 116 Births and 85 Deaths—giving a Birth-rate of 23·6, and a Death-rate of 17·3 per 1000 of the population. Births and Deaths.

Thirty-three Marriages were registered during the year—equivalent to '68 per cent., or 6·8 per 1000. The number of Marriages registered each month was—2 during January, 1 during February, 2 during March, 1 during April, 0 during May, 6 during June, 3 during July, 1 during August, 3 during September, 1 in October, 2 in November and 11 in December. Marriages.

The natural increase of the population is 31, being the excess of Births over Deaths. The excess last year was 5, making 36 in two years. The Births and Deaths were equal in 1894, and the Deaths exceeded the Births by 6 in 1893. The natural increase for the past four years is, therefore, 30. No allowance is made for changes caused by emigration or immigration. Of neither can any reliable estimate be made. Increase of Population.

During each of the last three years there has been an excess of Male Births and of Female Deaths. 181 Males have been born during the past three years as against 142 Females; and 161 Females have died as against 126 Males. This year the number of Male and Female Births was equal but the Female Deaths exceed the Males by 9. Excess of Male Births, and of Female Deaths.

In persons over 60 years of age there were 33 deaths, or 38·7 of the whole, as compared with 42·1 in 1895, and 41·1 in 1894. The deaths under one year were 15, giving an Infant Mortality of 129. Two deaths occurred under 5 years, six between 15 and 25 years, and twenty-nine between 25 and 60. Mortality at different ages.



BURGH OF CRIEFF.

TABLE I.—Births and Deaths occurring in the District during the Year 1896.

POPULATION— CENSUS 1891.	ACREAGE.	REGISTERED BIRTHS	REGISTERED DEATHS	MORTALITY AT SUBJOINED AGES						MORTALITY FROM SUBJOINED CAUSES.																							Under or over Five Years of Age.		
				Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 60	60 and upwards	Smallpox.	Diphtheria.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Other or Doubtful Fever.	Measles.	Whooping Cough.	Diarrhoea.	Septic Diseases.	Phthisis	Other than Tubercular Diseases.	Cancer, Malignant Diseases	Syphilis and other Venereal Diseases	Rheumatic Diseases	Premature Birth.	Developmental Diseases	Old Age	Diseases of Nervous System	Diseases of Circulatory System	Diseases of Re- spiratory System.	Diseases of Digestive System	Diseases of Urinary System		Violence	All other Causes
4901	760	116	85	15	2	0	6	29	33	0	0	0	0	0	0	0	2	1	0	2	0	0	0	0	3	1	0	0	0	6	1	0	1	0	Under 5, . . . 17 5 & Upwards, 68

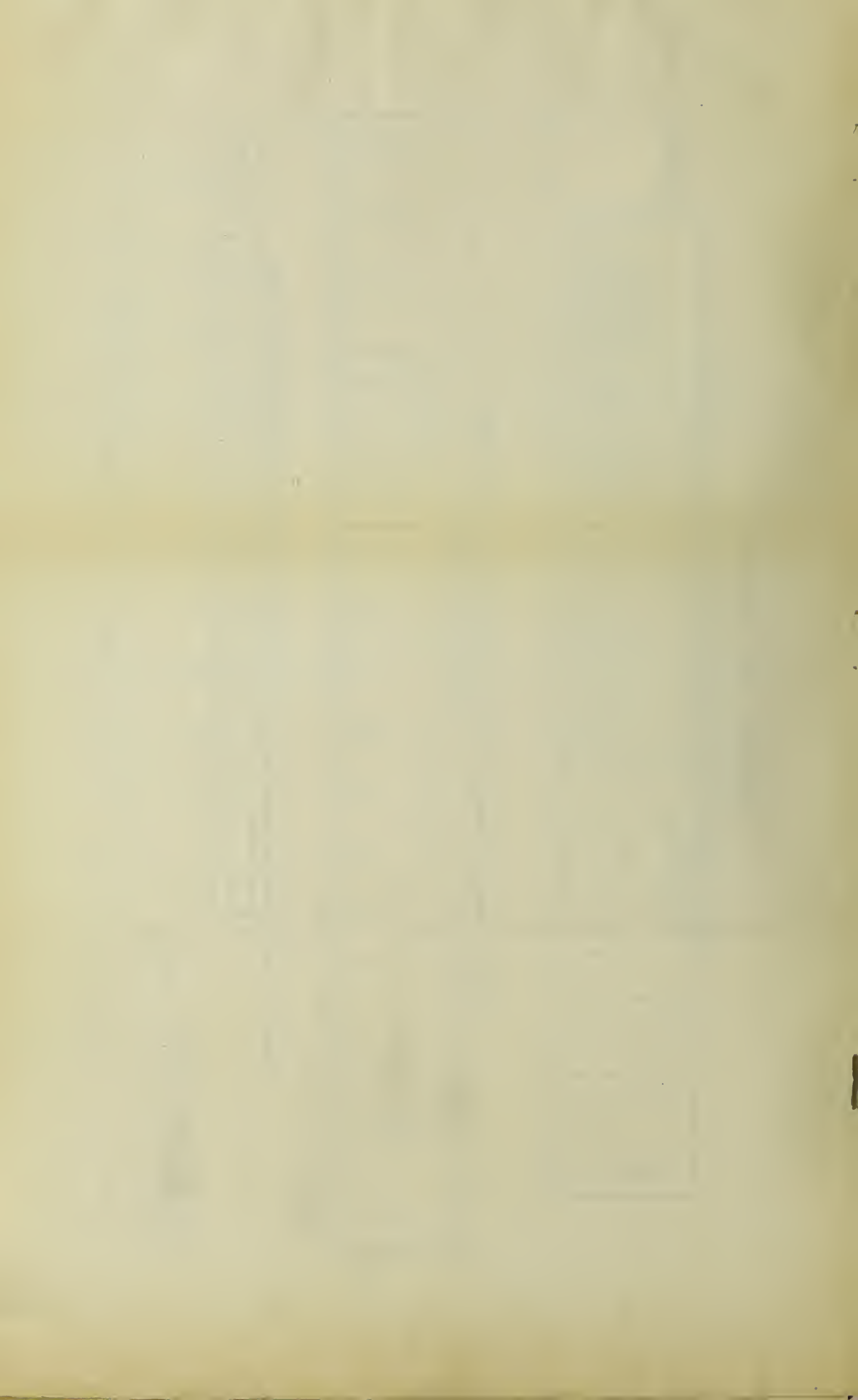
TABLE II.—Density of Population, Birth Rate, Infantile and other Death Rates.

Persons to the Acre.	Birth Rate.	Deaths under 1 Year per 1000 Births.	DEATH RATES, PER THOUSAND, FROM																
			All Causes.	The Principal Zymotic Diseases.															
				Total.	Smallpox.	Diphtheria.	Scarlet Fever.	Typhus Fever.	Enteric and other or Doubtful Fevers.	Measles.	Whooping Cough.	Diarrhoea.	Septic Diseases.	Tubercular Diseases.		Cancer.	Diseases of Nervous System.	Disease of Circulatory System.	Diseases of Respiratory System.
6.4	23.67	129	17.34	0.816	0.000	0.000	0.000	0.000	0.204	0.000	0.000	0.612	0.408	2.652	0.408	0.408	2.040	2.448	2.244

TABLE III.—Cases of Infectious Disease coming to the knowledge of the Medical Officer during the Year 1896.

Cases Removed to Hospital, Percentage of Cases Removed to Hospital,	Cases of Infectious Disease coming to the knowledge of the Medical Officer during the Year 1896.										TOTAL CASES.	
	Smallpox.	Diphtheria.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Continued Fever.	Puerperal Fever.	Measels.	Whooping Cough.	TOTAL CASES.	
	0	2a	9b	12	0	0	1	0	0c	0c	24	
	0	0	0	9	0	0	0	0	0	0	9	
				75							37.5	

a One Membranous Group. b 2 Cases Not Notified. c Not Notifiable under the Act.



The Birth-rate for the whole of Scotland is 30·8 per 1000, and the Illegitimate-rate 7·2. The Death-rate is 16·8, and the Marriage-rate 72. Compaision
with Average

The Birth-rate for the Burgh is 23·6 per 1000, and the Illegitimate-rate 8·6. The Death-rate is 17·3, and the Marriage-rate 68.

It may be seen that the Death-rate and Illegitimate-rate slightly exceed that for the whole of Scotland. The Marriage-rate is slightly less, and the Birth-rate falls far short of the average.

Of the 85 deaths registered about 10 per cent. occurred in Villas, the remaining 90 per cent. occurring in the more densely peopled parts. 18 of the deaths took place in East High Street, Church Street, Water Wynd and Alma Place. 17 took place in Gallowhill and North Bridgend. 17 took place in King Street and Commissioners' Street. 10 took place in James' Square, West High Street, and Bank Place. 4 took place in Burrell Street and Burrell Square. 4 took place south of the Bridgend. 2 took place in Dollerie Terrace, 2 in Pittenzie, and 2 in Duchlage Road. Mortality as to
Locality.

Tubercular Diseases caused 15 deaths during the year, as compared with 12 in 1895. Of the 15 deaths 13 or 86·6 per cent. were returned as Phthisis. Deaths from this class of diseases caused 17·6 per cent of the whole. Diseases of the Circulatory system caused 12 Deaths, as compared with 18 in 1895, of the 12 Deaths, 7 were in persons over 60 years of age. This class of Diseases caused 14·1 per cent. of the whole. Diseases of the Respiratory System caused 11 Deaths, as compared with 27 in 1895. 6 of the deaths occurred in Children under 1 year, and 3 in persons over 60. This class of Disease caused 12·9 per cent. of the whole. Diseases of the Nervous System caused 10 deaths, or 11·7 of the whole. Old Age caused 9 death. Diseases of the Digestive System caused 8 deaths. Zymotic Diseases caused 4 deaths, 3 were due to Diarrhoea, and 1 to Continued Fever. 2 deaths were due to Erysipelas, 2 to Cancer, 2 to diseases of the Urinary System, and 2 to Violence. 3 were due to Premature Birth, and one to Developmental Disease, and 4 to all other causes. Causes of
Death.

The causation of diseases in the Burgh comprises, the excessive use of Alcoholic Liquors, combined with defective sanitation, such as ill-ventilated, and overcrowded houses, noxious fumes from manufactories, accumulations of filth, and smoke from ordinary chimney stacks, which from the situation of the Burgh of Crieff, is blown from the chimney of one man's property into the window of his neighbour's above, and food of unsatisfactory character, and exposed to conditions not conducive to good health. To these may be added Infection. Causation of
Diseases

The Infectious (Notification) Act, 1889, has now been in force for about three years—(I append the tabular statement for the year). During the three years there have been notified in all 137 cases, giving an annual average of 46. Of these 60 have been returned as Scarlet Fever, 39 as Erysipelas, 16 as Enteric, 12 as Membranous Croup, 6 as Continued Fever, 3 as Diphtheria, and 1 as Smallpox. Infection.

Of the 60 Scarlet Fever cases 16 occurred in the month of August, and 16 in December. 7 occurred in October, 6 in November, 5 in February, 3 in April and 3 in May, 2 in June, 1 in March and 1 in September. Scarlet Fever
Season of year

INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

TABULAR STATEMENT

FOR THE YEAR ENDING 31st DECEMBER, 1896.

LOCAL AUTHORITY OF THE BURGH OF CRIEFF IN THE COUNTY OF PERTH.

TABLE 1.

DISEASES.	TOTAL CASES.			CASES TREATED PRIVATELY.			CASES REMOVED TO HOSPITAL.*		
	Cases Notified.	Deaths.	Percentage of Deaths to Notifications	Cases Notified.	Deaths.	Percentage of Deaths to Notifications	Cases Notified.	Deaths.	Percentage of Deaths to Notifications
Smallpox, ... ..	...	...	...	...	...	...	...	...	...
Cholera, ... ..	...	...	...	...	...	...	...	...	...
Diphtheria,	1	...	...	1	...	...	...	...	...
Membranous Croup,	1	...	...	1	...	...	...	...	...
Erysipelas,	7	†	...	7	†	...	...	...	...
Scarlatina or Scarlet Fever,	12	...	...	3	...	...	9	...	...
Typhus Fever, ... ..	...	...	...	...	...	...	...	...	...
Typhoid or Enteric Fever, ... ..	...	...	...	...	...	...	...	...	...
Relapsing, Fever, ... ..	...	...	...	...	...	...	...	...	...
Continued Fever,	1	1	100	1	1	100	...	...	...
Puerperal Fever, ... ..	...	...	...	...	...	...	...	...	...
Grand Total,	22	1	4·54	13	1	7·69	9	...	...

* The case of Diphtheria was isolated in a School Sanitorium. One case of Scarlatina was similarly dealt with, and the remaining two cases of Scarlatina were satisfactorily dealt with at home.

† There were two cases of Erysipelas unreported—both proved fatal.

TABLE 2.

NUMBER OF MEDICAL PRACTITIONERS' CERTIFICATES.						£	s.	d.
24 Cases in Private Practice at 2s 6d, 2 Dual Reports, ... ..	...	...	...	...	...	3	...	...
Cases in Public Institutions, ... ..	...	...	...	...	...	...	...	...
24 Cases. Total Cost in Fees, ... ..	...	...	...	...	...	3	...	...

- | | | | | |
|---|-----|-----|-----|---|
| 3. Number of Notifications by Head of Family, Occupier, &c., | ... | ... | ... | 0 |
| 4. Number of Cases omitted by Medical Practitioner, &c., | ... | ... | ... | 2 |
| 5. Number of Prosecutions, in terms of Section 3, consequent on such omissions, | ... | ... | ... | 0 |
| 6. Number of Convictions consequent on such Prosecutions, | ... | ... | ... | 0 |

13 cases were reported from North Bridge Street and Gallowhill, 12 were reported from King Street and Commissioners' Street, 11 were reported from Burrell Street, Galvelmore Street, Milnab Street and Milnab, 8 were reported from East High Street, Church Street and Water Wynd, 6 were reported from Duchlage Road, 4 from Schools, 2 from Cornton Place, 2 from Villas, 1 from a Hotel and 1 from Alichmore.

Scarlet Fever
Locality.

Of the 39 cases of Erysipelas 5 occurred in April and 5 in October, 4 occurred in January, 4 in May and 4 in November, 3 occurred in March, 3 in June, 3 in August and 3 in December, 2 occurred in February and 2 in July, 1 occurred in September.

Erysipelas.
Season of year.

18 cases were reported from the higher parts of the town—4 of the 18 being reported from Villas—8 were reported from North Bridge Street, 7 were reported from Burrell Street, Meadow Lane, Galvelmore Street, and Lodge Street, 5 were reported from King Street and Commissioners' Street, and 1 from South Bridgend.

Locality

Of the 16 cases of Enteric Fever 11 occurred in the month of October, 4 in the month of August and 1 in September.

Enteric Fever
Season of year

Three of the cases were reported from Burrell Street and 3 from Commissioners' Street, 2 from King Street and 1 each from Church Street, James Square, Duchlage Road, Cornton Place, Ramsay Street, Mitchell Street, Milnab Street and Milnab.

Locality

Of the 6 cases of Continued Fever 2 occurred in the month of February, and 1 each in August, September, November and December.

Continued
Fever
Season of year

A case was reported from each of the following localities—The Convent, Gallowhill, Commissioners' Street, North Bridgend, Cemetery Road and Earnbank.

Locality

The 3 cases of Diphtheria occurred in the months of June, July and Oct., and were reported from Cornton Place, North Bridgend and a School.

Diphtheria
Season of year
Locality

Of the 12 cases of Membranous Croup 3 occurred in November, 2 in January and 2 in July, 1 each occurred in February, March, April, October and December.

Membranous
Croup
Season of year

Two of the cases occurred in Commissioners' Street and two in East High. One occurred in each of the following localities—Burrell Street, Academy Road, Galvelmore Street, Milnab Street, Millar Street, Mitchell Street, College Buildings, and King Street.

Locality

The case of Smallpox occurred in the month of February, and was reported from the Convent.

Smallpox
Season and
Locality

Of the 137 cases of Infectious Diseases reported, 34 (or about 25 per cent.) were removed to the County Infirmary, with one death, or a mortality of 2·9 per cent. As the patient arrived at the Infirmary moribund it is not fair to count it.

Cases removed
to Hospital
Mortality

Of the 103 cases treated at home 6 died, giving a mortality of 5·8 per cent., or 9·3 per cent. if the moribund case and the 3 unreported cases of Erysipelas are added.

Cases treated at
home
Mortality

Of the 10 deaths one died of Scarlet Fever—the case that died in Hospital. 1 died of Enteric Fever, 2 of Continued Fever and 6 died of Erysipelas. One of the deaths from Continued Fever was that of a lad whose bed-room had been at least once flooded by rain water and sewage.

Mortality as to Disease

Of the cases removed to the Infirmary 29 (or about 85 per cent.) were cases of Scarlet Fever, 4 were cases of Enteric or Continued Fever, (or about 11 per cent.), and one a case of Erysipelas (or about 3 per cent.)

Nature and percentage of cases removed to hospital

29, or about 50 per cent. of the total cases of Scarlet Fever were removed to the Infirmary. 4, or about 20 per cent. of the total cases of Enteric or Continued Fever were removed to the Infirmary.

Percentage of the different cases removed

The remaining case was one of Erysipelas.

The remaining 31 cases of Scarlet Fever were carefully isolated at home. Those occurring in Schools being isolated in the Sanatoriums attached to them.

Local action to prevent the spread of Infectious Disease

The remaining 18 cases of Enteric and Continued Fever were treated at home, plenty of disinfectants being used. Two of the cases of Diphtheria were carefully isolated at home, and the School case in the Sanatorium. The case of Smallpox was carefully isolated, and re-vaccination carried out.

The action taken to prevent the spread of infectious diseases was completely successful.

No action whatever was taken with regard to the cases of Erysipelas or Membranous Croup.

The case of Erysipelas was removed to the Infirmary, simply to facilitate treatment.

Whooping Cough and Measels are not notifiable under the act, and in neither case can any reliable estimate be given of their prevalence.

During the year I visited the City and County Infirmary at Perth, to which Hospital the Commissioners of the Burgh of Crieff are entitled to send patients, on several occasions. On each visit I was allowed to inspect the whole premises, and found them in perfect order for the treatment of Infectious cases.

Supervision exercised over Hospital

Butcher Meat. From previous reports it may be gathered that I disapprove of the animals that are killed; the method of killing them; and their surroundings before and after slaughter.

Butcher Meat

In my report on the Slaughter-House, ending 31st December, 1894, the following occurs :—"Cows of all ages and conditions are slaughtered. Eild Cows, Old Eild Cows, Cows in Milk and Cows in Calf have been slaughtered for consumption by the people of Crieff. In such case the carcase is vastly inferior to that of the Heifer, and I think all such meat should be ticketed or classed, and that people should know exactly what they are buying. Old Tups and Ewes should be dealt with in the same way."

Class of Animals killed

According to the 261st section of the Edinburgh Municipal and Police Act, 1879, "every person who shall sell, or expose to sale, any bull beef, without having the words "bull beef" exhibited on a board in roman letters of at least three inches in length, and of a proportionate breadth, over the stall, or place in which it shall be exposed to sale, shall be liable to a penalty not exceeding five pounds, and the article shall be forfeited, and disposed of as the judge of police shall direct."

Now a prime bull is, weight for weight, a much dearer animal for the butcher to buy than a prime cow.

While the price paid per cwt. of live weight for a bull may reach 31/-, that for a very good cow may not exceed 22/-.

Further, while the price paid per cwt. of live weight for a prime bull may reach 31/-, the price of a prime bullock will reach at least 37/-.

It seems, therefore, obviously unfair that the public should pay the same price for, say, a roast from the cow, the bull, or the bullock.

Young fat heifers cost more than bulls, but less than bullocks.

Moreover, the cows slaughtered at the Crieff Slaughter-House are often the reverse of prime.

The sheep, as a rule, killed at the Crieff Slaughter House are good, but some of them are affected with coughs.

Tups are occasionally killed, and old ewes.

Lambs and calves are generally good.

Pigs killed for consumption in Crieff are good. I have seen old boars and old broad sows killed for export, also pigs suffering from paralysis and prolapse of the anus.

I am still of the opinion expressed in my previous reports, that all animals slaughtered for food should be allowed to die by their blood being allowed to drain away after incision. This is generally the case with sheep and lambs, but frequently attempts are made to break the animal's neck, and to pith it.

Method of
killing

Calves are killed by having their heads cut off. Hæmorrhage goes on from the severed vessels, the headless body being in convulsions. The head is laid down, and both movements of the eyelids and jaws have been observed.

Pigs are killed by being stuck in the region of the heart.

In previous reports I have fully explained and condemned the method of killing oxen.

In conclusion I can only add that all animals should be killed by severing the large blood vessels leading to and from the head, by a sharp knife.

